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Editorial

Graeme Laurie*

Fore-warned is Fore-armed: Is Intellectual Property a Suitable Case for Foresight?

A few years ago, Dr Francis Gurry, then Deputy Director General of WIPO, offered the view at an international conference that WIPO has “...no methodology whatsoever...” to tackle the interface between patent policy and public policy.¹ He helpfully categorised the evolution of the patent system into three stages:

- Stage I (1886 – TRIPs): unimodular system; patent law’s *own* policies drove the system
- Stage II (1992-1998): the patent system begins to consider *its* impact on other policy areas
- Stage III (1998-2004): More complexity and interaction; IP is now considered *from* the perspective of other policy areas.

While much has changed in the four years since this statement, the enduring message is that the evolution of the patent system has been characterised by an historical tendency to be extremely insular: a “hermetic world”, as a former President of the European Patent Institute has described it.² Yet, those who would defend such insularity must today be very few – or very quiet – faced with the onslaught of calls for intellectual property regimes to be far more responsive to, and integrated with, other social systems. Pressure has come from all sides, including the technological, political, economic, social, ethical, and ideological, about how IP systems can and should respond. The watchword of ‘globalisation’ in turn implies interconnectedness, and brings with it raised expectations about what IP systems in general - and the patent system in particular - should be made to do. But to what extent are such expectations realistic, and how far can they be realised?

It is against this background and these questions that the European Patent Office has produced its report, *EPO Scenarios for the Future*, in which it attempts to imagine four possible future worlds and the place of the patent system within them.³ These are: (i) a world where business is the dominant driver, (ii) a world where geopolitics is the dominant driver, (iii) a world where society is a dominant driver, and (iv) a world where technology is a dominant driver. The key focus of the study is to seek to answer two questions: (1) How might IP regimes evolve by 2025? (2) What global legitimacy might such regimes have? The approach involved engagement with stakeholders across many different sectors, soliciting their views on the significant factors and core challenges likely to impact the future of IP and patent systems. From this, five ‘driving forces’ were identified: (a) *power* – who holds it and what influence

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¹ University of Cambridge, the Sasakawa Peace Foundation and the Japanese National Graduate Institute for Policy Studies, Bioethical Issues of Intellectual Property in Biotechnology, Tokyo, Japan, 6-7 September 2004.

² European Patent Office, *Scenarios for the Future*, 2007, 102 quoting Walter Holzer.

³ Id.

do they have?; (b) *the global jungle* – who will survive, why, and for how long?, (c) *rate of change* – can we reconcile variable rates across different sectors and can IP keep up?, (d) *systemic risks* – what are the dynamics between interconnected systems, and what influences them?, and (e) *knowledge paradox* – is the patent system increasingly redundant as an (optimal) means to generate, protect and exploit knowledge?

This is, in many ways, an exercise in *Foresight*. The conclusions imagine a number of possible futures and an equal number of different views of intellectual property within those imagined worlds; these range from IP as a (pure) financial asset, to a tool of competitiveness, to a moral issue, and finally to a means of sharing technological solutions to complex problems. It is not hard, in turn, to imagine which view fits which world. But as an exercise in Foresight this project only takes us part of the way. Genuine *foresight*, as opposed to *rediscovery* of known factors that may impact on our future,⁴ involves mechanisms to support actors *actively* to shape the future. It is, in a very real sense, “action-oriented”,⁵ and as such can be distinguished from simple forecasting, “future studies”, or even informed policy development. Foresight is about imagining (and managing) what *can* be, rather than what *might* be, and is premised on the realisability of a strategic vision.

This presents use with our first real challenge in considering how foresight can be applied to IP systems. We are clearly a long way from building collective strategic visions, *despite* increases in global production, consumption and knowledge transfer, *despite* more harmonisation of intellectual property regimes than at any other time in our/their past, and *despite* better understandings of how IP regimes do, or do not, impact of innovation trajectories. Notwithstanding, such exercises can help achieve consensus on future challenges and an initial route towards better understandings of the factors which are likely to play an important part in shaping possible futures. Moreover, they can counter seemingly entrenched views and encourage reflexivity on what *can* be.

The future challenges, however, are not inconsiderable. Perhaps the most significant is that of ideological difference, both as to policies to promote technological development and as to the role of the patent system therein. A good example is the phenomenon of new converging technologies, such nanotechnologies, biotechnologies, information science and cognitive science. As a recent report makes clear,⁶ the US and the EU have very different agenda in promoting this phenomenon; while the US seeks to leverage short-term advances in nanotechnology from which it is expected that longer-term developments in other sciences and technologies will be triggered, it essentially leaves convergences to the vagaries of the market, and the role of patents therein is also left largely untouched. The EU is far more concerned with the innovation/regulation divide, and with the kinds of inventions that come to market. It is far more protectionist in this regard. This results in blurring of the

⁴ DENIS LOVERIDGE, “Foresight – Seven Paradoxes,” 21(7-8) International Journal of technology Management 781-791 (2001).

⁵ European Commission, Joint Research Centre: ForLearn Project, available here: <http://forlearn.jrc.es/index.htm>

⁶ STEVE FULLER, “Research Trajectories and Institutional Settings of New Converging Technologies”, Deliverable 1 from Knowledge Politics: Converging Technologies, 2008, available at <http://www.converging-technologies.org/>

distinctions between regulation and patent regimes, and, perhaps, a dilution of the former and too much expectation of the latter.⁷

The practice of foresight has become a strong trend in some quarters, placing social scientists and other academic disciplines in the mainstream of policy formation and decision-making where once they were mere observers and commentators from the sidelines. Two particular areas of increased interest are public engagement and the examination of ELSI-related issues,⁸ either as these relate to particular technologies, social policies, or even intellectual property systems themselves. Williams has, however, pointed to the risk of ‘compressed foresight’, being the tendency to imagine linear relationships between innovation pathways and outcomes, when the realities are considerably more complex and difficult to map.⁹ The clear example he gives is the presumption that ethically-conducted research will necessarily have ethically-desirable outcomes; by extension, a clear presumption that abounds in the realm of patenting is that of a linear relationship between the patent system, invention and successful innovation. Williams’s recommendation is to revisit our tacit presumptions and to examine critically the ways that dominant narratives import conceptions about particular phenomena; in the present content this would be a focus on the existence and operation of the patent system itself.

Overarchingly, we must ask how well and how far the patent system can respond to the plethora of expectations now made of it. A recent European Patent Forum meeting asked about “Patents to Save the Planet?”. This was a symposium to consider how the fields of patenting and intellectual property “may support innovations that benefit the environment and counteract climate change”.¹⁰ Proposed reforms included, more regulation, incentivised innovation (through prizes), making “green” invention licences available on a royalty-free basis, and a new tax mechanism labelled “Green IP”. These are wonderfully-sounding ideas and may well embody the solutions of the future, but they may equally require a fundamental revisioning of a patent system that would need to be very different from the one that we have today.

This editorial began with what might have seemed like an indictment of the (historically) insular nature of the patent system, but we must ask if we have now come too far in the other direction in foreseeing a system *capable* of responding to the multiple and multi-level demands that have arisen in recent times? It is pertinent in this regard to consider how limited the patent system is as a tool of foresight in its own right: *by definition*, it cannot predict nor explain where new technological developments will come from – for if we could foresee them, they would not be *new*. Far less can it predict, or even control, how patent rights will be exploited, once granted. The existing patent system therefore leaves us in a considerable state of both uncertainty and unpredictability as to its own internal possibilities, let alone how it

⁷ GRAEME LAURIE, “Patents, Patients and Consent: Exploring the Interface Between Regulation and Innovation Regimes,” in: H. Somsen (ed.) “The Regulatory Challenge of Biotechnology” 214-237 (Edward Elgar, Cheltenham, 2007).

⁸ Ethical, Legal and Social Issues (ELSI).

⁹ ROBIN WILLIAMS, “Compressed Foresight and Narrative Bias : Pitfalls in Assessing High Technology Futures,” 15(4), *Science as Culture*, 327-348 (2006).

¹⁰ European Patent Office, Patents to save the planet?, 6 May 2008, available at: <http://www.epo.org>

might shape those in other realms.¹¹ Hardly a suitable case for foresight, it might be thought.

Notwithstanding these challenges, the Arts and Humanities Research Council (AHRC) Research Centre for Studies in Intellectual Property and Technology Law at the University of Edinburgh, Scotland, has established an Intellectual Property Foresight Forum.¹² This is a project to create a flexible, dynamic and interdisciplinary infrastructure capable of providing academic input into existing and new processes designed to anticipate and respond to technological developments and their legal and policy implications. This editorial is informed by our initial experiences of attempting to apply foresight to intellectual property. And, to the extent that foresight is concerned with Blue Skies thinking and the possibility of realising some of the Bigger Ideas about Intellectual Property, our objective is to explore how the legal academy can contribute to such processes, however complex they might be.

¹¹ SIVARAMJANI THAMBISETTY, "Patents as Credence Goods," 27(4), *Oxford J of Legal Studies* 707-740 (2007).

¹² <http://www.law.ed.ac.uk/ahrc>